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EXAMINER	
KADING, JOSHUA A	

ART UNIT	PAPER NUMBER
2661	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/745,873	LEE, SEOUNG-YOUNG	
	Examiner	Art Unit	
	Joshua Kading	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☒ Claim(s) *1 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 1 and 8 are objected to because of the following informalities:

Claim 1, lines 5-6 state "the available or unavailable state". This should be changed to --an available or unavailable state--.

Claim 8, line 5 should have the words "one of" at the beginning of the line deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 discloses "each channel" on lines 2 and 6-7, and "the plurality of channels" on lines 4 and 6. It is unclear which set of plurality of channels these are referring to. Claim 24 discloses "a plurality of channels" on line 2, however, claim 8 (which claim 24 depends from) discloses "a plurality of communication channels" on line 3. Which set of channels is being referred to in claim 24?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art (AAPA).

Regarding claim 17, AAPA discloses "a method for informing a plurality of terminals of the occupied or unoccupied state of channels of a CDMA system, comprising:

providing a unique PN code for each one of a plurality of channels used in the CDMA system from a base station to each one of a plurality of terminals in communication with the base station (figure 1 shows the terminals and base station in contact with each other; figure 3 shows that each channel has a unique PN code);

transmitting a power control signal over an occupied channel using the PN code of the occupied channel (figure 3 shows the power control signal transmitted over an occupied channel using the PN code); and

transmitting an idle signal over an idle channel using the same PN code as the idle channel (figure 3 shows that the idle channel is transmitted on the same PN code channel as the power control signal)."

Regarding claim 18, AAPA discloses "the method of claim 17, wherein the power control signal is transmitted on a channel when the base station acquires synchronization and phase of a data packet transmitted by one of the plurality of terminals (figure 3 shows the transmission of the power control signal; page 3, lines 13-16 of the specification point to the preamble aiding in synchronization before transmission of the power control signal), and wherein the idle signal is then transmitted on the channel when the base station has received the entire packet of data (figure 3 where it shows the idle signal is transmitted when the channel is not be used by a terminal or when a packet has finished transmitting)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8-14, 16, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view of Benveniste (U.S. Patent 5,809,423).

Regarding claim 1, AAPA discloses "a method allocating channels in a CDMA packet data system, comprising:

providing channel availability information for each of a plurality of channels from a base station to each of a plurality of terminals (figure 1 shows the terminals and base station; figure 2 shows the channel availability information);

transmitting a state signal from the base station over each of the allocated channels indicating the unavailable state of the allocated channels (figure 3, where the power control signal indicates the unavailable state of a channel as can be read on page 4, line 3 of the specification)."

AAPA lacks "dynamically allocating available channels to corresponding ones of the plurality of terminals to allow the transmission of packet data according to [an] available or unavailable state of each channel". However, Benveniste discloses "dynamically allocating available channels to corresponding ones of the plurality of terminals to allow the transmission of packet data according to [an] available or unavailable state of each channel (col. 9, lines 47-54; it should also be noted that Benveniste allows for application to a CDMA system as can be read in col. 19, lines 36-40)".

It would have been obvious to one with ordinary skill in the art at the time of invention to include the dynamic allocation of channels with the rest of the method for the purpose of allowing a cell (or group of terminals) where all channels are busy to borrow an idle channel of a different cell. The motivation being that by borrowing channels the system allows for more users to access the network (Benveniste, col. 7, lines 9-10).

Regarding claim 2, AAPA and Benveniste disclose the method of claim 1. Benveniste lacks "the base station transmits information containing all PN codes used by the base station to each one of the plurality of terminals." However, AAPA further discloses "the base station transmits information containing all PN codes used by the base station to each one of the plurality of terminals (page 1, lines 15-19; it should be noted that although AAPA does not explicitly disclose the sending of all PN codes to the terminals, it does suggest that the terminals in a group are given their PN codes to access their assigned channel; it also noted, that when Benveniste is applied to AAPA as in claim 1 the PN codes of AAPA must be transmitted to all the terminals, that is to say if the terminals didn't have all the PN codes, they wouldn't be able to access the different channels of the system and there would be no borrowing of the channels, thus the PN codes must be transmitted to all the terminals)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the sending all the PN codes to all the terminals with the method of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 3, AAPA and Benveniste disclose the method of claim 1. Benveniste lacks "simultaneously monitoring each of the plurality of channels in parallel to detect whether the state signal indicating channel availability is transmitted by the base station over any of the plurality of channels; sending the packet of data through an idle channel, if an idle channel signal is detected; waiting until an idle channel is available, if an occupied channel signal is detected." However, AAPA further discloses

"simultaneously monitoring each of the plurality of channels in parallel to detect whether the state signal indicating channel availability is transmitted by the base station over any of the plurality of channels (page 3, lines 1-12 of the specification; figure 3 suggests that the monitoring of the channels is done simultaneously because the power control (or state signal) is transmitted whenever a terminal is communicating on that channel and as can be seen a terminal on one channel can communicate at the same time as a terminal on another channel, since the other terminals in a group must be aware of the availability of their channel, each channel must be monitored continuously so that terminals don't communicate at the same time, i.e. simultaneously); sending the packet of data through an idle channel, if an idle channel signal is detected (page 3, lines 2-3 of the specification); waiting until an idle channel is available, if an occupied channel signal is detected (figure 2, shows that a terminal waits to transmit until the channel is not idle)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the simultaneous monitoring and the transmitting during an idle state with the method of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 4, AAPA and Benveniste disclose the method of claim 3. Benveniste lacks "the step of simultaneously monitoring each of the plurality of channels comprises detecting on each channel one of a power control signal and an idle signal, wherein the power control signal is the occupied channel signal indicating unavailability of the channel, and the idle channel signal indicates channel availability." However, AAPA further discloses "the step of simultaneously monitoring each of the plurality of

channels comprises detecting on each channel one of a power control signal and an idle signal, wherein the power control signal is the occupied channel signal indicating unavailability of the channel, and the idle channel signal indicates channel availability (figure 3 where there is an idle signal and a power control signal transmitted)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the idle signal and the control power signal with the method of claim 3 for the same reasons and motivation as in claim 3.

Regarding claim 5, AAPA and Benveniste disclose the method of claim 1. Benveniste lacks "transmitting a power control signal through a downward link channel corresponding to the allocated channel through which the packet of data is transmitted when synchronization is acquired using a preamble of the data packet; and transmitting a channel occupancy release signal through the downward link channel corresponding to the allocated channel through which the data packet was transmitted when the data packet has been fully received." However, AAPA further discloses "transmitting a power control signal through a downward link channel corresponding to the allocated channel through which the packet of data is transmitted when synchronization is acquired using a preamble of the data packet (figure 3, where there is a power control signal transmitted on channel A with terminal 2; page 3, lines 13-16 of the specification point to the preamble aiding in synchronization); and

transmitting a channel occupancy release signal through the downward link channel corresponding to the allocated channel through which the data packet was

transmitted when the data packet has been fully received (page 4, lines 4-8 where the transmitting of an idle signal after the packet has been transmitted is the functional equivalent to transmitting a channel occupancy release signal in that it signifies the release of the channel from the terminal, it allows other terminals to access the channel)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the power control signal and the channel occupancy release signal with the method of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 6, AAPA and Benveniste disclose the method of claim 1. AAPA lacks "each of the available channels are dynamically allocated to different ones of the plurality of terminals." However, Benveniste discloses "each of the available channels are dynamically allocated to different ones of the plurality of terminals (col. 9, lines 47-54 where "the call" represents a terminal"; it should also be noted that Benveniste allows for application to a CDMA system as can be read in col. 19, lines 36-40)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the dynamically allocating channels to different terminals for the same reasons and motivation as in claim 1.

Regarding claim 8, AAPA discloses "a method for transmitting packet data by dynamically allocating channels in a communication system, comprising:

determining which, if any, of a plurality of communication channels is in an occupied state using a corresponding plurality of PN codes (page 1, lines 15-19 discloses the PN codes and figure 3 shows the power control signal with a PN code being used to identify an occupied state)..."

AAPA lacks "...transmitting a data packet through a dynamically allocated unoccupied one of the plurality of channels for transmission and monitoring each one of the plurality of channels to determine when the occupied state of one of the plurality of channels is released, if there is no channel in the unoccupied state."

However, Benveniste discloses "...transmitting a data packet through a dynamically allocated unoccupied one of the plurality of channels for transmission and monitoring each one of the plurality of channels to determine when the occupied state of one of the plurality of channels is released, if there is no channel in the unoccupied state (col. 9, lines 47-54; it should also be noted that Benveniste allows for application to a CDMA system (a PN code system) as can be read in col. 19, lines 36-40)".

It would have been obvious to one with ordinary skill in the art at the time of invention to include the dynamic allocation of channels with the rest of the method for the purpose of allowing a cell (or group of terminals) where all channels are busy to borrow an idle channel of a different cell. The motivation being that by borrowing channels the system allows fore more users to access the network (Benveniste, col. 7, lines 9-10).

Regarding claim 9, AAPA and Benveniste disclose the method of claim 8. AAPA and Benveniste both lack "the step of determining the occupied state comprises simultaneously multiplying the PN code for each channel by a signal received from a base station." Although both AAPA and Benveniste lack "multiplying the PN code for each channel by a signal received from a base station" it is known in the art that this is how a communication system using PN codes works. The signal is modulated with a PN code so that it is "spread" across a plurality of frequencies. Then it is transmitted and demodulated so that the original message may be constructed. It would have been obvious to one with ordinary skill in the art at the time of invention to include the PN multiplying with the method of claim 8 for the same reasons and motivation as in claim 8.

Regarding claim 10, AAPA and Benveniste disclose the method of claim 9. Benveniste lacks "the multiplication is performed at a rate equal to a power control signal transmission rate of the base station." However, AAPA discloses "the multiplication is performed at a rate equal to a power control signal transmission rate of the base station (figure 3 shows the PN code (not including the synchronization) is the same length as the power control signal thus suggesting that the multiplication of the PN code is performed at a same rate as the power control signal)." It would have been obvious to one with ordinary skill in the art at the time of invention to have the multiplication rate the same as the power control signal with the method of claim 9 for the same reasons and motivation as in claim 9.

Regarding claim 11, AAPA and Benveniste disclose the method of claim 8. Benveniste lacks "determining that a channel using a prescribed one of the plurality of PN codes is in an idle state and transmitting the data packet on the idle channel, if a base station transmits an idle signal on the channel; determining that each one of the plurality of channels is in an occupied state and waiting until one of the plurality of channels becomes idle if the base station transmits a power control signal on each channel."

However, AAPA further discloses "determining that a channel using a prescribed one of the plurality of PN codes is in an idle state and transmitting the data packet on the idle channel, if a base station transmits an idle signal on the channel (page 3, lines 2-3 of the specification); determining that each one of the plurality of channels is in an occupied state and waiting until one of the plurality of channels becomes idle if the base station transmits a power control signal on each channel (figure 2, shows that a terminal waits to transmit until the channel is not idle)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the transmitting during an idle state with the method of claim 8 for the same reasons and motivation as in claim 8.

Regarding claim 12, AAPA and Benveniste disclose the method of claim 11. Benveniste lacks "a signal transmitted from the base station is multiplied by each one of the plurality of PN codes to determine if the channel associated with a prescribed one of the PN codes is occupied or idle." However, AAPA discloses "a signal transmitted from

the base station is multiplied by each one of the plurality of PN codes to determine if the channel associated with a prescribed one of the PN codes is occupied or idle (figure 3 suggests that a PN code (specifically PN A in figure 3) is multiplied or modulated with a power control signal from the base station which identifies the availability status of the channel)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the multiplied PN codes and the signal from the base station with the method of claim 11 for the same reasons and motivation as in claim 11.

Regarding claim 13, AAPA and Benveniste disclose the method of claim 12. Benveniste lacks "a power control signal transmitted on a channel indicates that the channel is occupied." However, AAPA further discloses "a power control signal transmitted on a channel indicates that the channel is occupied (figure 3 shows the power control signal is transmitted only when a terminal is using or occupying the channel)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the power control signal with the method of claim 12 for the same reasons and motivation as in claim 12.

Regarding claim 14, AAPA and Benveniste disclose the method of claim 12. Benveniste lacks "each channel has a unique PN code." However, AAPA further discloses "each channel has a unique PN code (page 1, lines 16-17 of the specification)." It would have been obvious to one with ordinary skill in the art at the time

of invention to include the unique PN code for each channel with the method of claim 12 for the same reasons and motivation as in claim 12.

Regarding claim 16, AAPA and Benveniste disclose the method of claim 11. Benveniste lacks "a terminal transmitting the data packet has stored in the terminal the PN code for each one of the plurality of channels." However, AAPA further discloses "a terminal transmitting the data packet has stored in the terminal the PN code for each one of the plurality of channels (page 1, lines 15-19; it should be noted that although AAPA does not explicitly disclose storing all PN codes in the terminals, it does suggest that the terminals in a group are given their PN codes to access their assigned channel; it also noted, that when Benveniste is applied to AAPA as in claim 1 the PN codes of AAPA must be stored in all the terminals, that is to say if the terminals didn't have all the PN codes, they wouldn't be able to access the different channels of the system and there would be no borrowing of the channels, thus the PN codes must be stored in all the terminals)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the storing all the PN codes in all the terminals with the method of claim 11 for the same reasons and motivation as in claim 11.

Regarding claim 24, AAPA and Benveniste disclose the method claim 8. Benveniste lacks "establishing in a base station a plurality of channels for data communication, each channel having a unique PN code; receiving from the base station

the unique PN codes of each of the plurality of channels; and monitoring each of the plurality of channels to determine and occupy the state of each channel."

However, AAPA further discloses "establishing in a base station a plurality of channels for data communication, each channel having a unique PN code (figure 1 shows each terminal in communication with a base station; figure 3 shows the terminals using PN codes that are unique to each channel); receiving from the base station the unique PN codes of each of the plurality of channels (page 1, lines 15-19; it should be noted that although AAPA does not explicitly disclose the receiving of all PN codes at the terminals, it does suggest that the terminals in a group are given their PN codes to access their assigned channel; it also noted, that when Benveniste is applied to AAPA as in claim 1 the PN codes of AAPA must be received at all the terminals, that is to say if the terminals didn't have all the PN codes, they wouldn't be able to access the different channels of the system and there would be no borrowing of the channels, thus the PN codes must be received at all the terminals); and monitoring each of the plurality of channels to determine and occupy the state of each channel (page 3, lines 1-12 of the specification; figure 3 shows the power control signal is used to identify an occupied channel)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the unique PN codes and monitoring of channels with the method of claim 8 for the same reasons and motivation as in claim 8.

Regarding claim 19, AAPA discloses "the method of claim 18, wherein...the plurality of terminal have stored therein the unique PN code of each one of the plurality of channels (figure 3 shows the communication between base station and terminals, thus the PN codes must be stored within the terminals so that they may communicate with the base station)." AAPA lacks "...each one of the plurality of terminals stores therein the unique PN code of each...channel." However, Benveniste discloses "...each one of the plurality of terminals stores therein the unique PN code of each...channel (col. 9, lines 47-54 where having a terminal borrow a channel from a different cell means that the terminal must have the borrowed channel's PN code stored within it so that it may communicate using the borrowed channel; it should also be noted that Benveniste allows for application to a CDMA system as can be read in col. 19, lines 36-40)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the storing all PN codes in each terminal with the rest of the method for the purpose of allowing a cell (or group of terminals) where all channels are busy to borrow an idle channel of a different cell. The motivation being that by borrowing channels the system allows fore more users to access the network (Benveniste, col. 7, lines 9-10).

Regarding claim 20, AAPA discloses "a method allocating channels in a CDMA packet data system, comprising: receiving channel availability information for each of a plurality of channels from a base station (figure 1 shows the terminals and base station; figure 2 shows the channel availability information)...receiving from the base station a

power control signal on the allocated channel (figure 3 shows the power control signal on the allocated channel)."

AAPA lacks "...dynamically allocating an available channel and transmitting a packet of data to the base station using the allocated channel..." However, Benveniste discloses "...dynamically allocating an available channel and transmitting a packet of data to the base station using the allocated channel (col. 9, lines 47-54; it should also be noted that Benveniste allows for application to a CDMA system as can be read in col. 19, lines 36-40)..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the dynamic allocation of channels with the rest of the method for the purpose of allowing a cell (or group of terminals) where all channels are busy to borrow an idle channel of a different cell. The motivation being that by borrowing channels the system allows fore more users to access the network (Benveniste, col. 7, lines 9-10).

Regarding claim 21, AAPA and Benveniste disclose the method of claim 20. Benveniste lacks "the power control signal is released when the data packet has been transmitted." However, AAPA further discloses "the power control signal is released when the data packet has been transmitted (figure 3 shows that when the terminal has transmitted the packet, the power control signal is released and replaced by an idle signal)." It would have been obvious to one with ordinary skill in the art at the time of

invention to include the releasing of the power control signal with the method of claim 20 for the same reasons and motivation as in claim 20.

Regarding claim 22, AAPA and Benveniste disclose the method of claim 20. Benveniste lacks "the power control signal indicates unavailability of the channel." However, AAPA further discloses "the power control signal indicates unavailability of the channel (figure 3 shows that the power control signal is transmitted when a terminal is using the channel, i.e. when the channel is unavailable)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the indicating of unavailability using the power control signal with the method of claim 20 for the same reasons and motivation as in claim 20.

Regarding claim 23, AAPA and Benveniste disclose the method of claim 22. Benveniste lacks "a plurality of terminals are configured to simultaneously monitor channel availability information for all channels of the base station and transmit data on the first available channel detected." However, AAPA further discloses "a plurality of terminals are configured to simultaneously monitor channel availability information for all channels of the base station and transmit data on the first available channel detected (page 3, lines 1-12 of the specification; figure 3 suggests that the monitoring of the channels is done simultaneously because the power control is transmitted whenever a terminal is communicating on that channel and as can be seen a terminal on one channel can communicate at the same time as a terminal on another channel, since the

other terminals in a group must be aware of the availability of their channel, each channel must be monitored continuously so that terminals don't communicate at the same time, i.e. simultaneously)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the simultaneous monitoring of availability with the method of claim 22 for the same reasons and motivation as in claim 22.

Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Benveniste as applied to claims 1 and 8 respectively above, and further in view of Tiedemann, Jr. (U.S. Patent 5,604,730).

Regarding claim 7, AAPA and Benveniste disclose the method of claim 1. AAPA and Benveniste lack "each one of the plurality of channels comprises a traffic channel and a signaling channel, and wherein the data packets are transmitted over the data channel and the state signal is transmitted over the signaling channel." However, Tiedemann discloses "each one of the plurality of channels comprises a traffic channel and a signaling channel, and wherein the data packets are transmitted over the data channel and the state signal is transmitted over the signaling channel (figure 7, element 705 shows that each larger traffic channel contains a power control channel (signaling channel) and traffic channel)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the signaling and traffic channels with the method of claim 1 for the purpose of allowing the identification of an available channel using the power control. The motivation being that a power control signal allows a

terminal to control a channel without other terminal interference (AAPA, page 4, lines 1-3 of specification).

Regarding claim 15, AAPA and Benveniste disclose the method of claim 12. AAPA and Benveniste lack "each channel comprises a signaling channel and a traffic channel." However, Tiedemann discloses "each channel comprises a signaling channel and a traffic channel (figure 7, element 705 shows that each larger traffic channel contains a power control channel (signaling channel) and traffic channel)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the signaling and traffic channels with the method of claim 12 for the purpose of allowing the identification of an available channel using the power control. The motivation being that a power control signal allows a terminal to control a channel without other terminal interference (AAPA, page 4, lines 1-3 of specification).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lomp et al. (U.S. Patent 5,991,332) shows the modulation of PN codes in a CDMA system. Rudrapatna et al. (U.S. Patent 5,592,470) shows reallocation of channels from different classes. Olds et al. (U.S. Patent 5,669,062) shows allocation of unused channels. Masui et al. (U.S. Patent 6,269,088 B1) shows modulation of different PN codes in a CDMA system. Buczyński, et al. (IEEE article, "Performance of a

DS-CDMA System with Dynamic Channel Allocation and Soft Handover") shows dynamic channel allocation in CDMA communication systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joshua Kading
Examiner
Art Unit 2661

JK
March 9, 2004

KENNETH VANDERPUYE
PRIMARY EXAMINER